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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/634,195 | 08/09/2000 | Donna Jean Crowther | 2000U012.US | 4140 |

25959 7590 02/26/2003

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| EXAMINER |
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PASTERCZYK, JAMES W

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| ART UNIT | PAPER NUMBER |
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1755

DATE MAILED: 02/26/2003

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/634,195

Applicant(s)

Crowther

Examiner

J. Pasterczyk

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Dec 2, 2002
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 5-24, and 28-33 is/are pending in the application.
- 4a) Of the above, claim(s) 28-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 5-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claims 1, 5-24, and 28-33 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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1. This Office action is in response to the amendment filed and entered with the RCE papers of 12/2/02.
2. The abstract of the disclosure is objected to because in the last line insert --an-- before "alumoxane" since the latter is a generic term for a family of compounds, in the third from last line change "catalyst" to --catalytic-- since the former is a noun and the latter an adjective, and in the fourth line add group 10 since that is now claimed in claim 1. Correction is required. See MPEP § 608.01(b).
3. Claims 1 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 17, "cyclopropenyl alkylimido vanadium dichloride" is a generic term due to "alkyl", hence insert --a-- before it or pick a particular alkyl group.

In claim 1, first text line after the structures, monodentate and bidentate normally refer to the number of bonds a ligand may form to a metal center, not to the number of bonds a moiety may form to another moiety, hence this language in conjunction with the language of five lines down beginning with "when R or R' is a bidentate radical" is confusing and unclear as to what is claimed. This is particularly confusing when the first five lines after the structures recite the range within a range of particular "monodentate" radicals, followed by only provisos regarding when R and R' may be a "bidentate radical".

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4. Claims 1, 5-7, 9-13 and 15-24 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the transition metal compound being those of claims 8 and 14, does not reasonably provide enablement for any group 4-8 or 10 metal cyclopropenyl compound. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. The claims are quite broad in their scope of metal compound, and hence are not necessarily enabled. The examples only give methods of making a single molybdenum and palladium compound having a substituted cyclopropenyl ligand, rather than a broad range of metals along with a broad range of substituents on the cyclopropylene ligands. Both the cited Cotton and Collman textbooks on organometallic chemistry suggest that only very few η^3 cyclopropenyl ligand compounds are known, that they are far more likely to be late transition metal compounds having substituents other than hydrogen on the cyclopropenyl ring, and that metal insertion into the C-C bond to form a metallocycle is a frequent occurrence, suggesting that the η^3 forms of the compounds are not stable. Further characterization data like that suggested in paragraph 4 of the previous full Office action may overcome this rejection.

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1, 5-7, 9-13 and 15-24 are rejected under 35 U.S.C. 101 because the disclosed invention is inoperative and therefore lacks utility.

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For the reasons given in paragraph 4 above the invention is considered to be inoperative until further evidence is given of the actual structures of the claimed transition metal compounds.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Pasterczyk whose telephone number is (703) 308-3497. The examiner can normally be reached on M-F from 9 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell, can be reached on (703) 308-3823. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310 for normal faxes, 872-9311 for after final faxes.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


Mark L. Bell
Supervisory Patent Examiner
Technology Center 1700



J. Pasterczyk

2/21/03